

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 0315-638/POA	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2008/006397	International filing date (day/month/year) 19 MAY 2008 (19.05.2008)	(Earliest) Priority Date (day/month/year) 18 MAY 2007 (18.05.2007)
Applicant EMERSON CLIMATE TECHNOLOGIES, INC. et al		

This International search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

I. Basis of the report

a. With regard to the language, the international search was carried out on the basis of:

the international application in the language in which it was filed
 a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6bis(a)).

c. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. Certain claims were found unsearchable (See Box No. II)

3. Unity of invention is lacking (See Box No. III)

4. With regard to the title,

the text is approved as submitted by the applicant.
 the text has been established by this Authority to read as follows:

5. With regard to the abstract,

the text is approved as submitted by the applicant.
 the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 13

as suggested by the applicant.
 because the applicant failed to suggest a figure.
 because this figure better characterizes the invention.

b. none of the figure is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2008/006397

A. CLASSIFICATION OF SUBJECT MATTER

F04B 49/035(2006.01)i, F04B 49/00(2006.01)i, F04C 18/02(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 8 : F04B, F04C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 Korean Utility models and applications for Utility models since 1975
 Japanese Utility models and applications for Utility models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 eKIPASS(KIPO internal) & keywords: "scroll", "compressor", "capacity", "motor", "speed", "range", "modulation", "pulse", "width", "cycle", and "ratio"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2001-518601 A (COPELAND CORP.) 16 October 2001 See paragraphs 16-38; figures 5-15.	1-20
A	US 2005/0244277 A1 (PHAM, H. M. et al.) 03 November 2005 See claims 1-10; figures 1-12.	1-20
A	US 6,213,731 B1 (DOEPKER, R. J. et al.) 10 April 2001 See claims 1-5; figures 1-16.	1-20
A	KR 10-2005-0088765 A (WOORI COMPANY CO., LTD.) 07 September 2005 See claims 1-4; figures 1-4.	1-20

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:
 "A" document defining the general state of the art which is not considered to be of particular relevance
 "E" earlier application or patent but published on or after the international filing date
 "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)
 "O" document referring to an oral disclosure, use, exhibition or other means
 "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
 "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
 "&" document member of the same patent family

Date of the actual completion of the international search 08 SEPTEMBER 2008 (08.09.2008)	Date of mailing of the international search report 08 SEPTEMBER 2008 (08.09.2008)
Name and mailing address of the ISA/KR  Korean Intellectual Property Office Government Complex-Daejeon, 139 Seonsa-ro, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer KIM Sung Ho Telephone No. 82-42-481-8438



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2008/006397

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 2001-518601 A	16.10.2001	AU 1998-93087 A1 AU 748946 B2 BR 9812560 A CN 1238674 C CN 1272171 A CN 1308633 C CN 1607478 A CN 1664372 A CN 1664473 A CN 1664475 A CN 1920305 A CN 1952813 A DE 69833266 C0 DE 69833266 T2 EP 1025403 A1 EP 1025403 B1 EP 1489368 A2 EP 1489368 A3 EP 1598611 A2 EP 1598612 A2 EP 1598613 A2 EP 1598614 A2 EP 1598615 A2 ES 2256958 T3 KR 10-2001-0030754 A KR 10-2003-0079877 A US 2001-002239 A1 US 2001-045097 A1 US 2001-049942 A1 US 2002-178737 A1 US 2003-084672 A1 US 2003-089119 A1 US 2003-094004 A1 US 2004-123612 A1 US 2006-288715 AA US 2007-022771 AA US 6047557 A US 6393852 BB US 6408635 B1 US 6438974 B1 US 6449972 BB US 6467280 BB US 6499305 BB US 6662578 BB US 6662583 BB US 6679072 BB WO 99-17066 A1	23.04.1999 13.06.2002 01.08.2000 25.01.2006 01.11.2000 04.04.2007 20.04.2005 07.09.2005 07.09.2005 07.09.2005 28.02.2007 25.04.2007 06.04.2006 10.08.2006 09.08.2000 18.01.2006 22.12.2004 01.06.2005 23.11.2005 23.11.2005 23.11.2005 23.11.2005 16.07.2006 16.04.2001 10.10.2003 31.05.2001 29.11.2001 13.12.2001 05.12.2002 08.05.2003 15.05.2003 22.05.2003 01.07.2004 28.12.2006 01.02.2007 11.04.2000 28.05.2002 25.06.2002 27.08.2002 17.09.2002 22.10.2002 31.12.2002 16.12.2003 16.12.2003 20.01.2004 08.04.1999

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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